

HP PDNo. 10017266-1

## CLAIMS

What is claimed is:

1. A method for operating a computer comprising:

booting an operating system having a plurality of tunable kernel subsystems;

storing a representation of at least one base tunable having a set of inheritable properties in a memory of the computer; and

storing, in a memory of the computer, a plurality of representations of instances of at least one of the stored base tunables, each instance including at least one inheritable property of the stored base tunable, wherein representations of at least a first instance and a second instance are stored at different memory addresses, the first instance and the second instance comprise structures including a plurality of values, and the first instance and the second instance differ in at least one corresponding said value.

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2. A method in accordance with Claim 1 wherein said storing a plurality of representations of instances of at least one of the stored base tunables comprises:

from a first kernel subsystem, calling an instance creation function to store a first instance data structure in a memory of the computer corresponding to a first instance of one of the base tunables and including at least one said inheritable property; and

from a second, different kernel subsystem, calling the instance creation function to store a second instance data structure in a memory of the computer corresponding to a second instance of said one of the base tunables and including at least one said inheritable property,

3. A method in accordance with Claim 2 further comprising deallocating at least one of the first instance of the base tunable and the second instance of the base tunable.

4. A method in accordance with Claim 2 further comprising writing data indicative of the identity of said one of the base tunables into said first instance data structure and said second instance data structure.

5. A method in accordance with Claim 2 further comprising determining when an inheritable property in a base tunable data structure is changed, and propagating the changed inheritable property to both the first instance data structure and the second instance data structure upon said determination.

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6. A method in accordance with Claim 2 further comprising determining when an inheritable property in a base tunable data structure is changed, determining, for each instance variable of the base tunable, whether the instance variable is to inherit the changed inheritable property from the base tunable, and propagating the changed inheritable property to each instance data structure corresponding to an instance variable determined to inherit the changed inheritable property.

7. A method in accordance with Claim 6 further comprising deallocating at least one of the first instance of the base tunable and the second instance of the base tunable, and wherein said determination of whether the instance variable is to inherit the changed inheritable property is performed only for instance variables that are not deallocated.

8. A method in accordance with Claim 1 wherein the set of inheritable properties includes at least one member of the group consisting of a name, one or more values indicative of allowed instance variable values, a description, and combinations thereof.

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9. A computing apparatus including a central processing unit, a memory coupled to the central processing unit, and a memory storage device coupled to the central processing unit and upon which an operating system kernel and kernel subsystems are stored, said computing apparatus configured to:

boot an operating system having a plurality of tunable kernel subsystems;

store a representation of at least one base tunable having inheritable properties in the memory of the computing apparatus; and

store, in the memory of the computing apparatus, a plurality of representations of instances of at least one said stored base tunable, each said instance including at least one inheritable property of said stored base tunable, wherein representations of at least a first said instance and a second said instance are stored at different addresses in the memory, said first instance and said second instance comprise structures including a plurality of values, and said first instance and said second instance differ in at least one corresponding said value.

10. A computing apparatus in accordance with Claim 9 wherein to store a plurality of representations of instances of at least one said stored base tunable, said computing apparatus is configured to:

from a first said kernel subsystem, call an instance creation function to store a first instance data structure in the memory of the computing apparatus corresponding to a first instance of one of said base tunables and including at least one said inheritable property; and

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from a second, different kernel subsystem, call said instance creation function to store a second instance data structure in the memory of the computing apparatus corresponding to a second instance of said one of said base tunables and including at least one said inheritable property.

11. A computing apparatus in accordance with Claim 10 further configured to change at least one inheritable property in said base tunable data structure of said one of said base tunables and to propagate said changed inheritable property to both said first instance data structure and said second instance data structure.

12. A computing apparatus in accordance with Claim 10 further configured to write data indicative of the identity of said one of said base tunables into said first instance data structure and said second instance data structure.

13. A computing apparatus in accordance with Claim 10 further configured to determine when an inheritable property in one of said base tunables is changed, to determine, for each instance of said one of said base tunables, whether said instance variable is to inherit the changed inheritable value from said one of said base tunables, and to propagate said changed inheritable property to each instance data structure corresponding to said instance variable determined to inherit said changed inheritable property.

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14. A computing apparatus in accordance with Claim 13 further configured to deallocate at least one of said first instance of said base tunable and said second instance of said base tunable, and wherein said determination of whether said instance variable is to inherit said changed inheritable property is performed only for instance variables that are not deallocated.

15. A machine-readable medium or media having recorded thereon data configured to instruct a computing apparatus having a central processing unit and associated memory to:

store a representation of at least one base tunable having inheritable properties in the memory of the computing apparatus; and

store, in the memory of the computing apparatus, a plurality of representations of instances of at least one said stored base tunable, each said instance including at least one inheritable property of said stored base tunable, wherein representations of at least a first said instance and a second said instance are stored at different addresses in the memory, said first instance and said second instance comprise structures including a plurality of values, and said first instance and said second instance differ in at least one corresponding said value.

16. A medium or media in accordance with Claim 15 wherein to store a plurality of representations of instances of at least one said stored base tunable, said medium or media has recorded thereon instructions configured to instruct the computing apparatus to:

from a first said kernel subsystem, call an instance creation function to store a first instance data structure in the memory of the computing apparatus corresponding to a first instance of one of said base tunables and including at least one said inheritable property; and

from a second, different kernel subsystem, call said instance creation function to store a second instance data structure in the memory of the computing apparatus corresponding to a second instance of said one of said base tunables and including at least one said inheritable property.

17. A machine readable medium or media in accordance with Claim 16 and further having recorded thereon data configured to instruct the computing apparatus to deallocate at least one of the first instance of the base tunable and the second instance of the base tunable.

18. A machine readable medium or media in accordance with Claim 16 further having recorded thereon data configured to instruct the computing apparatus to determine when an inheritable property in a base tunable data structure is changed, and to propagate the changed inheritable property to both the first instance data structure and the second instance data structure upon said determination.

19. A machine readable medium or media in accordance with Claim 16 further having recorded thereon data configured to instruct the computing apparatus to determine when an inheritable property in a base tunable data structure is changed, to determine, for each instance variable of the base tunable, whether the instance variable is to inherit the changed inheritable property from the base tunable, and to propagate the changed inheritable property to each instance data structure corresponding to an instance variable determined to inherit the changed inheritable property.



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20. A machine readable medium or media in accordance with Claim 19 further having recorded thereon data configured to instruct the computing apparatus to deallocate at least one of the first instance of the base tunable and the second instance of the base tunable, and to perform said determination and propagation only for instance variables that have not been deallocated.